

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A transformed cell in which a polynucleotide encoding an osmosensing histidine kinase having no transmembrane region is introduced in a functional form into a cell that is deficient in at least one hybrid-sensor kinase, wherein the cell is a ~~baeterial cell,~~ ~~a yeast cell,~~ or a plant cell budding yeast cell.

2. (previously presented): The transformed cell according to claim 1, wherein the polynucleotide complements the hybrid-sensor kinase deficiency.

3. (canceled).

4. (canceled).

5. (previously presented): The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region has a mutation that confers resistance to any of a dicarboxyimide antifungal compound, an aromatic hydrocarbon antifungal compound and a phenylpyrrole antifungal compound to the cell.

6. (previously presented): The transformed cell according to claim 5, wherein the osmosensing histidine kinase having no transmembrane region has the amino acid sequence of SEQ ID NO: 13.

7. (currently amended): The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region is ~~derived~~ obtained from a plant-pathogenic filamentous fungus.

8. (previously presented): The transformed cell according to claim 1, wherein the polynucleotide encodes an osmosensing histidine kinase having no transmembrane region is obtained from *Botryotinia fuckeliana*.

9. (previously presented): The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region has the amino acid sequence of SEQ ID NO: 1.

10. (previously presented): The transformed cell according to claim 1, wherein the polynucleotide has the nucleotide sequence of SEQ ID NO: 2 or SEQ ID NO:14.

11. (withdrawn-previously presented): A method of assaying the antifungal activity of a substance, which comprises:

a first step of culturing the transformed cell as defined in claim 1 in the presence of a test substance;

a second step of measuring an amount of intracellular signal transduction from the osmosensing histidine kinase having no transmembrane region or an index value having the correlation therewith; and

a third step of assessing the antifungal activity of the test substance based on a difference between an amount of intracellular signal transduction or an index value having the correlation therewith measured in the second step and a control.

12. (withdrawn): The method of assaying according to claim 11, wherein the amount of intracellular signal transduction from the osmosensing histidine kinase having no

transmembrane region or the index value having the correlation therewith is an amount of growth of the transformed cell.

13. (withdrawn): A method of searching an antifungal compound, which comprises selecting an antifungal compound based on the antifungal activity assessed in the assaying method as defined in claim 11.

14. (withdrawn): An antifungal compound selected by the searching method as defined in claim 13.

15.-22. (Canceled)